

AMENDMENTS IN THE CLAIMS

The listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (Currently amended) A pre-assembled apparatus for reducing the tendency of upper proportions of a wall ~~walls~~ to move with respect to a foundation as a result of lateral forces applied in a direction parallel to the wall, said apparatus in combination with said wall comprising:

said wall, said wall having and upper plate, a lower plate, and studs connecting said upper plate to said lower plate, said studs supporting said upper plate;

said apparatus inserted within and connected to said wall, said apparatus comprising

two vertically extending posts having both an upper and a lower end and defining a front and a back side, wherein said two vertically extending posts are positioned in a pre-selected spaced relationship;

a horizontally extending upper member which is connected to said upper ends of said two vertically extending posts and wherein said horizontally extending upper member is ~~configured to be~~ connected to an upper portion of said wall;

one or more brace members that interconnect said two vertically extending posts so as to maintain said vertically extending posts in said pre-selected spaced relationship when said apparatus is installed in a wall that is under shear stress from said lateral forces;
and

two attachment points which are respectively connected to said lower ends of said two vertically extending posts wherein said both of said two attachment points are ~~configured to be~~ attached to an anchor

~~point~~ points that is are anchored in said foundation of said building to thereby anchor said vertically extending posts to said anchor points, and wherein said apparatus is pre-assembled to allow for installation in said wall by attaching said two attachment points to said anchor points and connecting said upper member to said upper portion of said wall so that said apparatus thereby reduces the tendency of said upper portion to move relative said foundation.

2. (Original) The apparatus of Claim 1, wherein said one or more brace members is comprised of two planar members attached to said front and said back side of said two vertical posts and to said upper horizontal member.
3. (Original) The apparatus of claim 2, further comprising a lower horizontal member that is attached to said lower ends of said two vertical posts and wherein said two planar members are attached to said lower horizontal member.
4. (Previously amended) The apparatus of Claim 3, wherein said apparatus is adapted to reduce the tendency of an upper portion of said wall to move relative said foundation with respect to an uplift force, said uplift force on said wall occurring as a result of an overturn movement caused by said wall being exposed to said lateral forces.
5. (Original) The apparatus of Claim 4, wherein said two vertical posts and said planar members are formed out of metal.
6. (Previously amended) The apparatus of Claim 5, wherein said two vertical posts are approximately 7'-8" in height and said apparatus is less than 3 feet in width and said apparatus is adapted to reduce the tendency of said upper portion of said wall to move when said upper horizontal member of said apparatus is connected to said upper portion of said wall, said upper portion of said wall

being formed with an upper plate, and when said lateral forces cause said upper plate to move, causing motion, said apparatus reduces said motion of said upper plate of said wall that is connected to said upper horizontal member to approximately 0.5" of deflection or less from a rest position when subjected to 3,500lb. of said lateral forces applied on said upper plate in said direction parallel to said horizontal upper member in a pseudo-cyclic shear testing.

10. (Previously amended) An apparatus for reducing the tendency of an upper portions of a wall in a building to move with respect to a foundation as a result of lateral forces applied in a direction parallel to the wall, said apparatus in combination with said wall comprising:

said wall, said wall having and upper plate, a lower plate, and studs connecting said upper plate to said lower plate, said studs supporting said upper plate;

said apparatus inserted within and connected to said wall, said apparatus comprising

two vertically extending posts having both an upper end and a lower end and defining a front and back side, wherein said two vertically extending posts are positioned in a preselected spaced relationship;

at least one panel member interconnecting said two vertically extending posts substantially along the entire length of said posts;

two holdown bolts that are anchored in said foundation of said building; and

two attachment points which are respectively connected to said lower ends of said vertically extending posts wherein said both of said two attachments points are respectively attached to said two holdown bolts and wherein said apparatus is connected to said wall by said two

attachment points attached to said holdown bolts and said upper end of said vertical posts attached to said upper portions of said wall so that said apparatus thereby reduces the tendency of said upper portions of said wall to move relative said foundation as a result of shear stress by transmitting said shear stress from said upper portions of said wall through said vertical members and said at least one panel member to said anchor points and said holdown bolts positioned in said foundation, and wherein said posts and said panel of said apparatus for reducing the tendency of said wall to move are separate members from said studs, said upper plate and said lower plate of said wall.

11. (Previously amended) The apparatus of claim 10, further comprising;

an upper horizontal member that interconnects said upper portions of said two vertical posts, wherein connection between said upper ends of said vertical posts is achieved by connecting said upper horizontal member to said upper ends of said vertical posts; and

a lower horizontal member that interconnects said lower ends of said two vertical posts, and wherein said upper horizontal and said lower horizontal members are separate members from said upper plate and said lower plate of said wall.

12. (Previously amended) The apparatus of Claim 11, wherein said one or more panel members is comprised of two panel members attached to said front and said back side of said two vertical posts and to said upper and lower horizontal members.

13. (Previously amended) The apparatus of Claim 12, wherein said two attachment points are comprised of two brackets that are connected to said holdown bolts in said foundation, wherein said two brackets receive said lower horizontal member and said two vertical posts so that said lower horizontal member and said two posts can be fixedly attached to said brackets.
14. (Previously amended) The apparatus of claim 10, further comprising shear bolts mounted in said foundation and wherein said lower horizontal member is attached to said shear bolts mounted in said foundation to thereby reduce the likelihood of a lower portion of said apparatus becoming dislodged from said foundation in response to lateral forces applied to said wall.
22. (Original) The apparatus of claim 10, where said apparatus is dimensioned so that a gap exists between said apparatus and said upper plate of said wall.
23. (Original) The apparatus of claim 10, wherein said panel of the apparatus is not directly connected to any of the studs, the upper plate or the lower plate of said wall.
24. (Original) The apparatus of claim 10, wherein said apparatus connects to said upper plate of said wall.
25. (Original) The apparatus of claim 11, wherein said panel does not extend beyond said upper horizontal member of said apparatus.

26. (Original) A method of building a wall so that the tendency of an upper portion of a wall having an upper plate to move relative a lower portion of said wall is reduced, said method comprising the steps of:

providing a foundation for said wall, wherein one or more holdown bolts are each installed in said foundation at a pre-selected location in said foundation;

mounting two or more studs so as to extend substantially vertically upward from said foundation;

positioning an upper plate on a top surface of said two or more studs;

attaching a lower portion of a shear reduction panel to said holdown bolts so that said panel is positioned between said two studs, said shear reduction panel being pre-assembled to have two vertical posts, an upper horizontal member and a lower horizontal member connecting said two vertical posts, and at least one panel interconnecting said two vertical posts substantially along the vertical lengths of said posts; and

attaching an upper portion of said shear reduction panel to said upper plate of said wall so that movement of said upper plate of said wall in response to lateral forces applied to said upper plate of said wall in response to lateral forces applied to said wall is reduced as a result of the lateral forces being transmitted through the vertical posts and the interconnecting panel to the holdown bolts mounted in the foundation.

27. (Original) The method of claim 26, wherein said the panel does not extend beyond said upper horizontal member of said apparatus.

28. (Original) The method of claim 26, wherein said pre-assembled shear reduction panel is dimensioned so that a gap exists between said shear reduction panel and said upper plate of said wall.

29. (Original) A method of building a wall so that the tendency of an upper portion of a wall having an upper plate to move relative to a lower portion of said wall is reduced, said method comprising the steps of:

providing a foundation for said wall, wherein one or more holdown bolts are each installed in said foundation at a pre-selected location in said foundation;

mounting two or more studs so to extend substantially vertically upward from said foundation;

positioning an upper plate on a top surface of said two or more studs;

attaching a lower portion of a shear reduction panel to said holdown bolts so that said panel is positioned between said two studs, said shear reduction panel being pre-assembled to have an upper horizontal member and a lower horizontal member, and at least one panel interconnecting said upper horizontal member and said lower horizontal member; and

attaching an upper portion of said shear reduction panel to said upper plate of said wall so that movement of said upper plate of said wall in response to lateral forces applied to said wall is reduced as a result of the lateral forces being transmitted through the vertical posts and the interconnecting panel to the holdown bolts mounted in the foundation.

30. (Original) The method of claim 29, wherein said panel has lips that extend substantially perpendicular to the panel and then substantially parallel to the panel.

31. (Original) The method of claim 30, wherein said upper and lower horizontal members are U-shaped.

32. (Original) The method of claim 31, wherein said shear reduction panel further comprises thick plates connected to said shear reduction panel where said shear reduction panel connects to said holdown bolts.

33. (Original) An apparatus for reducing the tendency of an upper portion of a wall in a building to move with respect to a foundation as a result of lateral forces applied in a direction parallel to the wall, said apparatus in combination with said wall comprising:

said wall, said wall having an upper plate, a lower plate, and studs connecting said upper plate to said lower plate, said studs supporting said upper plate;

said apparatus inserted within and connected to said wall, said apparatus comprising

upper and lower horizontal members, wherein said upper and lower horizontal members are positioned in a pre-selected spaced relationship;

at least one panel member interconnecting said upper and lower horizontal members; and

two holdown bolts that are anchored in a foundation of said wall, wherein said apparatus is attached to said two holdown bolts and wherein said apparatus is connected to said wall by said upper horizontal member attached to said upper portions of said wall so that said apparatus thereby reduces the tendency of said upper portion of said wall to move relative said foundation as a result of shear stress by transmitting said shear stress from said upper portion of said wall through said at least one panel member to said holdown bolts positioned in said foundation, and wherein said upper and said lower horizontal members and said panel of said apparatus for reducing the tendency of said wall to move are separate members from said studs, said upper plate and said lower plate of said wall.

34. (Original) The method of claim 33, wherein said panel has lips that extend substantially perpendicular to the panel and then substantially parallel to the panel.

35. (Original) The method of claim 34, wherein said upper and lower horizontal members are U-shaped.

36. (Original) The method of claim 35, wherein said apparatus further comprises thick plates connected to said shear reduction panel where said shear reduction panel connects to said holdown bolts.